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(54) Title: BACTERIA FOR HIGH EFFICIENCY CLONING

(57) Abstract: Disclosed are novel bacterial hosts that are capable of high efficiency transformation with methylated and/or unmethylated nucleic acids, and that are bacteriophage resistant. Such bacteria contain: (1) an F' episome that confers high efficiency transformability; (2) one or more mutations that allow transformation of methylated nucleic acids; (3) one or more mutations that allow transformation with unmethylated nucleic acids; and/or (4) one or more mutations that confer resistance to bacteriophage infection. Also disclosed are methods for transforming such bacteria, and kits that contain such bacteria (*e.g.*, that have been made competent for transformation).

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US04/00737

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12N 1/20
US CL : 435/252.8

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 435/252.8

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,274,369 B1 (DONAHUE, JR. et al) 14 August 2001 (14.06.2001), see entire article.	1-12
A	US 5,248,605 (CHATTERJEE) 28 September 1993 (28.09.1993) see entire article.	1-12
A	US 5,538,864 (HILL et al) 23 July 1996 (23.07.1996), see entire article.	1-12
A	US 5,432,066 (KERN et al) 11 July 1995 (11.07.1995), see entire article.	1-12

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

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INTERNATIONAL SEARCH REPORT

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Continuation of B. FIELDS SEARCHED Item 3:

EAST, STN files Medline, Biosis, Caplus, Embase

search terms: transformation, efficiency, frequency, F', episome, phage resistance, methylation, mcr?, hsd?, tonA,